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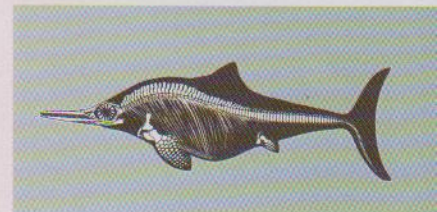
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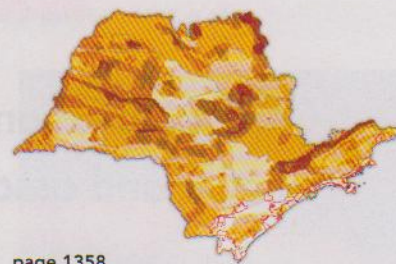
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## COVER

Rows of marching soldiers will risk their lives to defeat the enemy and protect their country during intergroup conflicts. This combination of self-sacrifice and aggression toward competing groups is known as parochial altruism. A Report on page 1408 reveals that this behavior is regulated by oxytocin, a short peptide produced in the hypothalamus and known to promote in-group trust and cooperation.

Photo: Fernando Bueno/Getty Images

## DEPARTMENTS

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## REPORTS

- 1368** The Transition Between Real and Complex Superconducting Order Parameter Phases in  $\text{UPt}_3$

J. D. Strand et al.

The temperature evolution of two superconducting phases has been observed in a heavy fermion superconductor.

- 1370** Mechanical Control of Spin States in Spin-1 Molecules and the Underscreened Kondo Effect

J. J. Parks et al.

Controlled stretching of individual transition-metal complexes enables direct manipulation of the molecule's spin states.

>> Perspective p. 1362

- 1373** Nanoscale Tunable Reduction of Graphene Oxide for Graphene Electronics

Z. Wei et al.

Conducting regions can be drawn on graphene oxide sheets with a heated atomic force microscope tip.

- 1376** Quaternary Ammonium (Hypo)iodite Catalysis for Enantioselective Oxidative Cycloetherification

M. Uyanik et al.

Iodine can effectively replace a transition metal as an electron-transfer catalyst for an organic reaction.

>> Perspective p. 1365

- 1379** Regulation of Body Temperature by Some Mesozoic Marine Reptiles

A. Bernard et al.

Fast-swimming plesiosaurs, ichthyosaurs, and mesosaurs may have been able to thermoregulate.

>> Perspective p. 1361

- 1382** Climate Change Will Affect the Asian Water Towers

W. W. Immerzeel et al.

Climate change will cause substantial but diverse changes in water availability in the major river basins of Southeast Asia.

- 1385** Periodic, Chaotic, and Doubled Earthquake Recurrence Intervals on the Deep San Andreas Fault

D. R. Shelly

Analysis of 900 low-magnitude earthquakes reveals complex patterns of occurrence.

- 1388** Stochastic Community Assembly Causes Higher Biodiversity in More Productive Environments

J. M. Chase

A long-term experiment in ponds addresses the influence of primary productivity on broad-scale patterns of biodiversity.

- 1391** Exploitation of the Intestinal Microflora by the Parasitic Nematode *Trichuris muris*

K. S. Hayes et al.

Intestinal worm parasites rely on gut bacteria to trigger egg hatching and establish infection.

- 1394** Defective Cross-Presentation of Viral Antigens in GILT-Free Mice

R. Singh and P. Cresswell

Thiol reductase in dendritic cells processes disulfide-containing viral proteins for recognition by killer T cells.

- 1398** Endosomal Chloride-Proton Exchange Rather Than Chloride Conductance Is Crucial for Renal Endocytosis

G. Novarino et al.

- 1401** Lysosomal Pathology and Osteopetrosis upon Loss of  $\text{H}^+$ -Driven Lysosomal  $\text{Cl}^-$  Accumulation

S. Weinert et al.

Chloride conductance and chloride-proton exchange have distinct effects on endolysosomal physiology in mice.

>> Perspective p. 1364

- 1404** Covering a Broad Dynamic Range: Information Processing at the Erythropoietin Receptor

V. Becker et al.

Modeling and experiments help to explain responsiveness of red blood cell precursors to very large changes in a proliferative signal.

- 1408** The Neuropeptide Oxytocin Regulates Parochial Altruism in Intergroup Conflict Among Humans

C. K. W. De Dreu et al.

A hypothalamic hormone modulates bonding within a group and defense-related aggression between competing groups.

>> News story p. 1343; Science Podcast

- 1412** Focal Lesions of Human Hippocampal CA1 Neurons in Transient Global Amnesia Impair Place Memory

T. Bartsch et al.

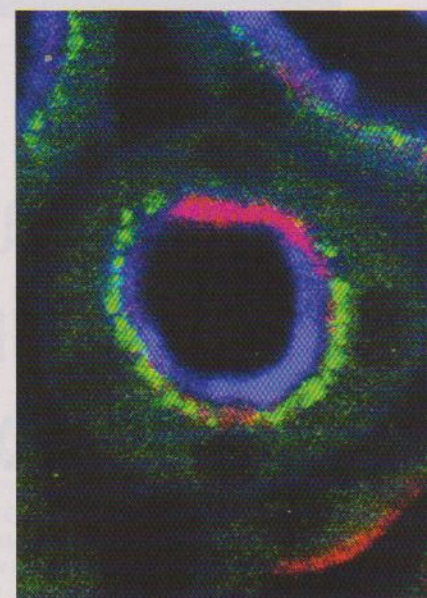
A rare syndrome elucidates the anatomy of navigation and spatial memory consolidation.

- 1415** Dlg1-PTEN Interaction Regulates Myelin Thickness to Prevent Damaging Peripheral Nerve Overmyelination

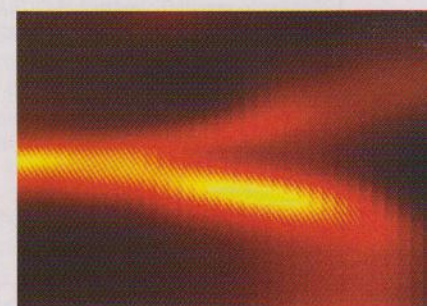
L. Cotter et al.

To prevent too much myelin from causing trouble, two proteins act to limit insulation of axons.

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## SCIENCEONLINE

## SCIENCEEXPRESS

[www.sciencexpress.org](http://www.sciencexpress.org)

**A Giant Planet Imaged in the Disk of the Young Star  $\beta$  Pictoris**

A.-M. Lagrange et al.

The Very Large Telescope reveals that a huge planet formed within a star's dusty disk in a few million years.

10.1126/science.1187187

**Capture of the Sun's Oort Cloud from Stars in Its Birth Cluster**

H. F. Levison et al.

Some Oort cloud comets may have originated in the protoplanetary disk of stars other than the Sun.

10.1126/science.1187535

>> *Science Podcast*

**Controlled Injection of Spin-Triplet Supercurrents into a Strong Ferromagnet**

J. W. A. Robinson et al.

Unusual magnetic ordering in a rare earth metal is used to create superconducting currents with aligned spins.

10.1126/science.1189246

**Reprogramming of T Cells to Natural Killer-Like Cells upon *Bcl11b* Deletion**

P. Li et al.

A transcription factor is essential for maintenance of T cell identity.

10.1126/science.1188063

**Ku70 Corrupts DNA Repair in the Absence of the Fanconi Anemia Pathway**

P. Pace et al.

A specific pathway protects damaged DNA from error-prone repair.

10.1126/science.1192277

## SCIENCENOW

[www.sciencenow.org](http://www.sciencenow.org)

Highlights From Our Daily News Coverage

**Tracking Disease Through Mosquito Slobber**

Saliva left behind by feeding mosquitoes reveals whether they're infected with dangerous viruses.

**Crocodiles Know How to Ride the Tides**

Crafty crocs cruise in favorable currents to cover vast distances.

**Learning the Mongoose Ways**

African carnivores pass down traditions to their young.

## SCIENCE SIGNALING

[www.sciencesignaling.org](http://www.sciencesignaling.org)

The Signal Transduction Knowledge Environment

**RESEARCH ARTICLE: Purinergic Signaling—A Fundamental Mechanism in Neutrophil Activation**  
Y. Chen et al.

Neutrophil activation by infectious and inflammatory signals requires ATP release and its feedback through purinergic receptors.

**RESEARCH ARTICLE:  $\beta$ -Arrestin-Biased Agonism of the Angiotensin Receptor Induced by Mechanical Stress**

K. Rakesh et al.

## PODCAST

H. A. Rockman and A. M. VanHook

Mechanical stress on hearts triggers  $\beta$ -arrestin-dependent cell survival signaling through the angiotensin receptor.

**PERSPECTIVE: Eradicating the Mediators of Neuronal Death with a Fine-Tooth Comb**  
R. S. Zukin

Polycomb group proteins promote the acquisition of ischemic tolerance in neurons.

## SCIENCE CAREERS

[www.sciencereers.org/career\\_magazine](http://www.sciencereers.org/career_magazine)

Free Career Resources for Scientists

**Audacity, Part 5: Rejection and Ridicule**

A. Sasso

The deeper your idea cuts into the heart of a field, the more your peers are likely to challenge you.

**Designing a Career in Biomedical Engineering**  
E. Pain

Engineers, biologists, mathematicians, physicists, and chemists all contribute to the development of medical devices.

**A New Partnership Aims to Improve Research Careers Down Under**

E. Finkel

Edwina McGlinn will be Australia's first program leader in a partnership with the European Molecular Biology Laboratory.

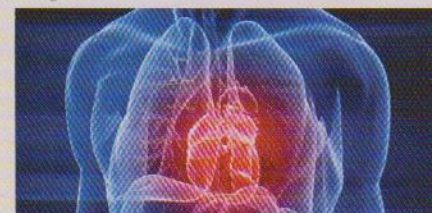
## SCIENCE TRANSLATIONAL MEDICINE

[www.sciencetranslationalmedicine.org](http://www.sciencetranslationalmedicine.org)

Integrating Medicine and Science

**COMMENTARY: Reaping the Benefits of Biomedical Research—Partnerships Required**  
L. M. Portilla and B. Alving

The National Institutes of Health are exploring multiple ways in which to increase the efficiency of the translational process.



## SCIENCE SIGNALING

Heart's response to mechanical stress.

**RESEARCH ARTICLE: Gatekeeper Mutations Mediate Resistance to BRAF-Targeted Therapies**  
S. Whittaker et al.

**PERSPECTIVE: On or Off Target—Mutations, Models, and Predictions**  
L. A. Garraway and W. C. Hahn

An elegant biochemical study reconciles some of the confusing aspects of the discovery and development of anticancer drugs that inhibit the RAF protein kinase.

**RESEARCH ARTICLE: Systemic Delivery of scAAV9 Expressing SMN Prolongs Survival in a Model of Spinal Muscular Atrophy**  
C. F. Valori et al.

An adeno-associated virus vector expressing the survival motor neuron protein rescues mice with spinal muscular atrophy.

## SCIENCEPODCAST

[www.sciencemag.org/multimedia/podcast](http://www.sciencemag.org/multimedia/podcast)

Free Weekly Show

Download the 11 June *Science* Podcast to hear about oxytocin's role in parochial altruism, the origins of Oort cloud comets, evidence that Polynesians sailed to South America, and more.

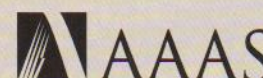
## SCIENCEINSIDER

[news.sciencemag.org/scienceinsider](http://news.sciencemag.org/scienceinsider)

Science Policy News and Analysis

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